

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Re: Appeal to the Board of Patent Appeals and Interferences

In re PATENT APPLICATION of
 Inventor(s): Mills

Group Art Unit: 1754

Appln. No.: 09/362,693

Examiner: Langel for Secret Committee

Filing Date: 7/29/1999

Title: INORGANIC HYDROGEN AND HYDROGEN-POLYMER COMPOUNDS AND APPLICATIONS
 THEREOF

January 9, 2002

Sir:

- 1 **NOTICE OF APPEAL:** Applicant hereby appeals to the Board of Patent Appeals and Interferences from the decision (not Advisory Action) dated of the Examiner twice/finally rejecting claims
- 2 **BRIEF** on appeal in this application attached in triplicate.
- 3 An **ORAL HEARING** is respectfully requested under Rule 194 (due two months after Examiner's Answer – unextendable).
- 4 Reply Brief is attached in triplicate (due two months after Examiner's Answer – unextendable).
- 5 "Small entity" herewith. previously.

6 FEE CALCULATION:		Large/Small Entity	
If box 1 above is X'd, see box 12 below <u>first</u> and decide:		enter \$. . .	\$160
If box 2 above is X'd, see box 12 below <u>first</u> and decide:		enter \$. . .	\$. . .
If box 3 above is X'd, see box 12 below <u>first</u> and decide:		enter \$. . .	\$. . .
If box 4 above is X'd,		enter nothing	- 0 - (no fee)
7. Original due date: Petition Requested and Fees Paid In Accompanying Fee Transmittal			
8. Petition is hereby made to extend the original due date to cover (1 months) the date this response is filed for which the requisite fee is attached <input type="checkbox"/> (2 months) <input type="checkbox"/> (3 months) <input type="checkbox"/> (4 months) <input type="checkbox"/> (5 months)		\$. . .	
9. Enter any previous extension fee paid <input type="checkbox"/> previously since above <u>original due date</u> (item 7); <input checked="" type="checkbox"/> with concurrently filed amendment	
10. Subtract line 9 from line 8 and enter: Total Extension Fee		+190	
11. TOTAL FEE ATTACHED =		\$190	

12. *Fee NOT required if/since paid in prior appeal in which the Board of Patent Appeals and Interferences did not render a decision on the merits.

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficient fee only) now or hereafter relative to this application and the resulting Official document under Rule 20, or credit any overpayment, to our Account/Order Nos. 06-0115/ for which purpose a duplicate copy of this sheet is attached. This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal form is filed.

Manelli Denison & Selter, PLLC

Att: 

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Page 1 of 2 Filing Receipt for Documents Filed in U.S. Patent and Trademark Office
U.S. Serial No.: 09/362,693 Inventor: Mills Date: January 9, 2002

Enclosed Items:

Response to final Office Action- 90 pages
Appendix to Response – 168 pages
Petition for Three Months Extension
Notice of Appeal
Rule 132 Declaration of Dr. Mills
Two (2) Information Disclosure Statements
Check: \$650



Copies of following publications of Dr. Mills providing experimental evidence:

1. H. Conrads, R. Mills, Th. Wrubel, "Emission in the Deep Vacuum Ultraviolet from an Incandescently Driven Plasma in a Potassium Carbonate Cell", Plasma Sources Science and Technology, submitted.
2. R. L. Mills, P. Ray, "Stationary Inverted Lyman Population Formed from Incandescently Heated Hydrogen Gas with Certain Catalysts", Chem Phys. Letts., submitted.
3. R. L. Mills, B. Dhandapani, J. He, "Synthesis and Characterization of a Highly Stable Amorphous Silicon Hydride", Int. J. Hydrogen Energy, submitted.
4. R. L. Mills, A. Voigt, B. Dhandapani, J. He, "Synthesis and Characterization of Lithium Chloro Hydride", Int. J. Hydrogen Energy, submitted.
5. R. L. Mills, P. Ray, "Substantial Changes in the Characteristics of a Microwave Plasma Due to Combining Argon and Hydrogen", New Journal of Physics, submitted.
7. R. L. Mills, P. Ray, "High Resolution Spectroscopic Observation of the Bound-Free Hyperfine Levels of a Novel Hydride Ion Corresponding to a Fractional Rydberg State of Atomic Hydrogen", Int. J. Hydrogen Energy, in press.
8. R. L. Mills, E. Dayalan, "Novel Alkali and Alkaline Earth Hydrides for High Voltage and High Energy Density Batteries", Proceedings of the 17th Annual Battery Conference on Applications and Advances, California State University, Long Beach, CA, (January 15-18, 2002), in press.
9. R. Mayo, R. Mills, M. Nansteel, "On the Potential of Direct and MHD Conversion of Power from a Novel Plasma Source to Electricity for Microdistributed Power Applications", IEEE Transactions on Plasma Science, submitted.
10. R. Mills, P. Ray, J. Dong, M. Nansteel, W. Good, P. Jansson, B. Dhandapani, J. He, "Excessive Balmer α Line Broadening, Power Balance, and Novel Hydride Ion Product of Plasma Formed from Incandescently Heated Hydrogen Gas with Certain Catalysts", Int. J. Hydrogen Energy, submitted.
11. R. Mills, E. Dayalan, P. Ray, B. Dhandapani, J. He, "Highly Stable Novel Inorganic Hydrides from Aqueous Electrolysis and Plasma Electrolysis", Japanese Journal of Applied Physics, submitted.
12. R. L. Mills, P. Ray, B. Dhandapani, J. He, "Comparison of Excessive Balmer α Line Broadening of Glow Discharge and Microwave Hydrogen Plasmas with Certain Catalysts", Chem. Phys., submitted.
13. R. L. Mills, P. Ray, B. Dhandapani, J. He, "Spectroscopic Identification of Fractional Rydberg States of Atomic Hydrogen", J. of Phys. Chem. (letter), submitted.
14. R. L. Mills, P. Ray, B. Dhandapani, M. Nansteel, X. Chen, J. He, "New Power Source from Fractional Rydberg States of Atomic Hydrogen", Chem. Phys. Letts., submitted.
15. R. L. Mills, P. Ray, B. Dhandapani, M. Nansteel, X. Chen, J. He, "Spectroscopic Identification of Transitions of Fractional Rydberg States of Atomic Hydrogen", Quantitative Spectroscopy and Energy Transfer, submitted.
16. R. L. Mills, P. Ray, B. Dhandapani, M. Nansteel, X. Chen, J. He, "New Power Source from Fractional Quantum Energy Levels of Atomic Hydrogen that Surpasses Internal Combustion", Spectrochimica Acta, Part A, submitted.
17. R. L. Mills, P. Ray, "Spectroscopic Identification of a Novel Catalytic Reaction of Rubidium Ion with Atomic Hydrogen and the Hydride Ion Product", Int. J. Hydrogen Energy, in press.
18. R. Mills, J. Dong, W. Good, P. Ray, J. He, B. Dhandapani, "Measurement of Energy Balances of Noble Gas-Hydrogen Discharge Plasmas Using Calvet Calorimetry", Int. J. Hydrogen Energy, in press.
19. R. L. Mills, A. Voigt, P. Ray, M. Nansteel, B. Dhandapani, "Measurement of Hydrogen Balmer α Line Broadening and Thermal Power Balances of Noble Gas-Hydrogen Discharge Plasmas", Int. J. Hydrogen Energy, in press.
20. R. Mills, P. Ray, "Vibrational Spectral Emission of Fractional-Principal-Quantum-Energy-Level Hydrogen Molecular Ion", Int. J. Hydrogen Energy, in press.
21. R. Mills, P. Ray, "Spectral Emission of Fractional Quantum Energy Levels of Atomic Hydrogen from a Helium-Hydrogen Plasma and the Implications for Dark Matter", Int. J. Hydrogen Energy, Vol. 27, No. 3, (2002) pp. 301-322.
22. R. Mills, P. Ray, "Spectroscopic Identification of a Novel Catalytic Reaction of Potassium and Atomic Hydrogen and the Hydride Ion Product", Int. J. Hydrogen Energy, Vol. 27, No. 2, (2002), pp. 183-192.
23. R. Mills, "BlackLight Power Technology-A New Clean Hydrogen Energy Source with the Potential for Direct Conversion to Electricity", Proceedings of the National Hydrogen Association, 12th Annual U.S. Hydrogen Meeting and Exposition, *Hydrogen: The Common Thread*, The Washington Hilton and Towers, Washington DC, (March 6-8, 2001), pp. 671-697.

FROM

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In re PATENT APPLICATION of
Inventor(s)Mills

Appln. Nos. 09/362,693 and 09/009,455

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Name Jeff Melcher

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Date June 9, 1999